

RB23
Bowie State University
University System of Maryland

Capital Budget Summary

Summary of State-owned Projects Funded in Governor's Request
(\$ in Millions)

| <i>Project Title</i> | <i>Prior Approp.</i> | <i>FY 2014 Request</i> | <i>Future Estimated</i> | <i>Estimated Total</i> | <i>DLS FY 2014 Recommd.</i> |
|-------------------------|--------------------------|----------------------------|-----------------------------|----------------------------|-------------------------------------|
| Natural Sciences Center | \$3.100 | \$4.500 | \$81.800 | \$89.400 | \$4.500 |
| Total | \$3.100 | \$4.500 | \$81.800 | \$89.400 | \$4.500 |

| <i>Fund Source</i> | <i>Prior Approp.</i> | <i>FY 2014 Request</i> | <i>Future Estimated</i> | <i>Estimated Total</i> | <i>DLS FY 2014 Recommd.</i> |
|--------------------|--------------------------|----------------------------|-----------------------------|----------------------------|-------------------------------------|
| GO Bond | \$3.100 | \$4.500 | \$71.800 | \$79.400 | \$4.500 |
| Revenue Bond | 0.000 | 0.000 | 10.000 | 10.000 | 0.000 |
| Total | \$3.100 | \$4.500 | \$81.800 | \$89.400 | \$4.500 |

Summary of Recommended Bond Actions

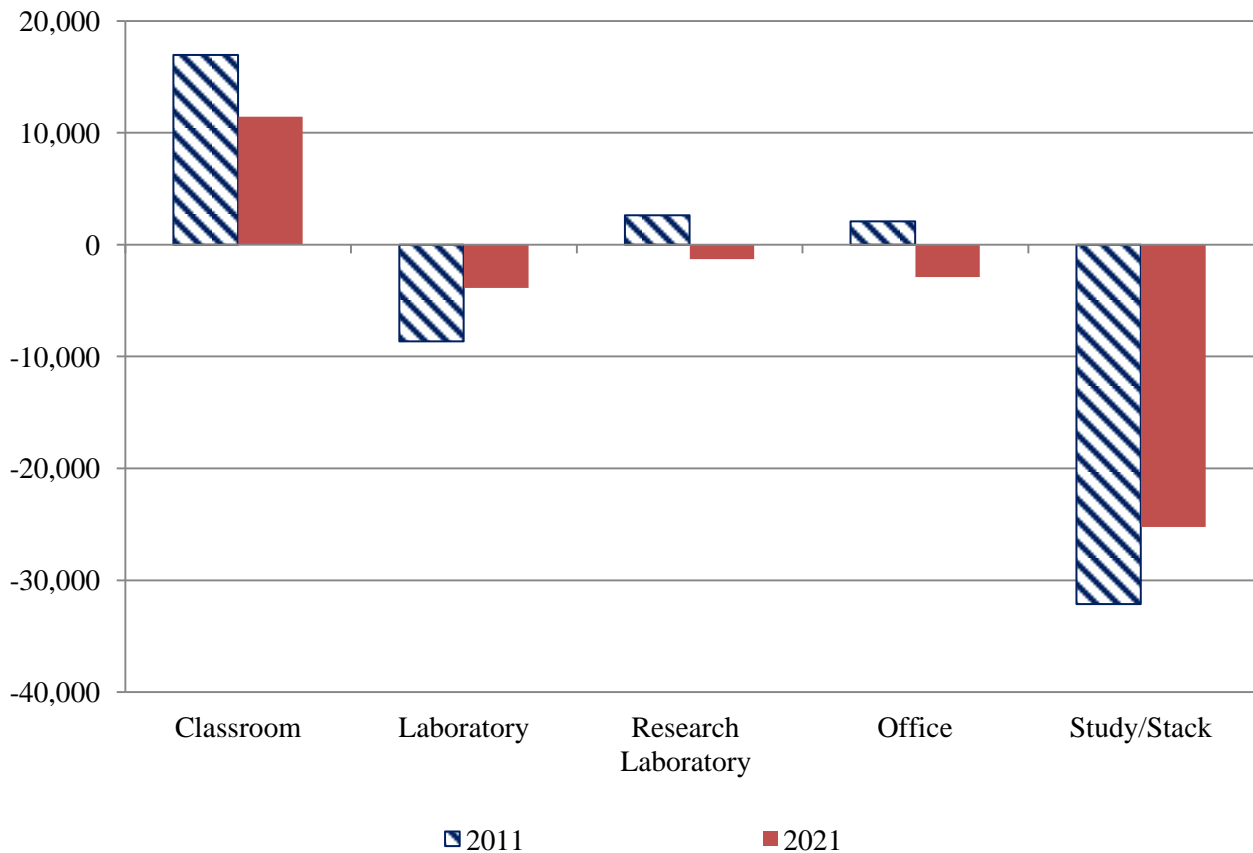
1. Natural Sciences Center

Approve.

Agency Performance Measures and Outputs/Population Data

According to the fall 2010 facilities inventory, Bowie State University (BSU) academic space totals 317,262 net assignable square footage (NASF), which includes 86,829 NASF of classroom space; 60,616 NASF of teaching laboratory space; and 108,262 NASF of office space. **Exhibit 1** shows BSU's self-reported space deficiencies in fiscal 2011 and projected deficiencies in fiscal 2021. BSU currently expects to have space shortages in four of the five space categories. The Natural Sciences Center (NSC) would provide all five types of academic spaces that BSU needs and would assist BSU in meeting expected enrollment growth and expansion of science, technology, engineering, and mathematics (STEM) programs.

Exhibit 1
Academic Space Deficiency
Net Square Footage



Source: Four-year Public Colleges and Universities Academic Space Surplus/Deficit: Fiscal 2011, Projected 2021, Maryland Higher Education Commission

Capital Improvement Program

State-owned Capital Improvement Program (\$ in Millions)

| <i>Projects</i> | <i>Prior Auth.</i> | <i>2014 Request</i> | <i>2015 Est.</i> | <i>2016 Est.</i> | <i>2017 Est.</i> | <i>2018 Est.</i> | <i>Beyond CIP</i> |
|------------------------|-------------------------------|--------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|
|------------------------|-------------------------------|--------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|

| | | | | | | | |
|--------------|----------------|----------------|-----------------|-----------------|----------------|----------------|----------------|
| Planning | \$3.100 | \$4.000 | \$1.800 | \$0.000 | \$0.000 | \$0.000 | \$0.000 |
| Construction | 0.000 | 0.500 | 38.350 | 38.350 | 0.300 | 0.000 | 0.000 |
| Equipment | 0.000 | 0.000 | 0.000 | 3.000 | 0.000 | 0.000 | 0.000 |
| Total | \$3.100 | \$4.500 | \$40.150 | \$41.350 | \$0.300 | \$0.000 | \$0.000 |

| <i>Fund Source</i> | <i>Prior Auth.</i> | <i>2014 Request</i> | <i>2015 Est.</i> | <i>2016 Est.</i> | <i>2017 Est.</i> | <i>2018 Est.</i> | <i>Beyond CIP</i> |
|---------------------------|-------------------------------|--------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|
|---------------------------|-------------------------------|--------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|

| | | | | | | | |
|---------------|----------------|----------------|-----------------|-----------------|----------------|----------------|----------------|
| GO Bonds | \$3.100 | \$4.500 | \$30.150 | \$41.350 | \$0.300 | \$0.000 | \$0.000 |
| Revenue Bonds | 0.000 | 0.000 | 10.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total | \$3.100 | \$4.500 | \$40.150 | \$41.350 | \$0.300 | \$0.000 | \$0.000 |

Budget Overview

The fiscal 2014 budget programs \$4.5 million to complete design and begin construction of NSC at BSU. This is an increase of \$0.2 million from the 2012 session *Capital Improvement Program* (CIP). The fiscal 2013 budget included \$3.1 million for preliminary design. As of the 2013 CIP, the project now also includes \$10.0 million in revenue bonds in fiscal 2015. When completed, the new NSC facility will provide modern laboratory and office space for expanding BSU programs in physical sciences, nursing, and mathematics. The project scope also includes demolishing both the Wiseman Center and the Crawford Science Building.

NSC project includes the following components:

- demolish the Wiseman Center to create space on campus for construction of NSC;
- construct the modified NSC which now includes additional facilities for nursing and mathematics research and classes; and

- demolish the Crawford Science Building after NSC has been completed, as it is inadequate for current teaching needs and the space can be repurposed as a plaza.

NSC will help improve BSU by creating a new teaching and research laboratory and classroom space. While the current science facility, the Crawford Science Building, offers about 15,000 NASF for laboratory space, NSC will offer about 36,000 NASF for laboratory space. NSC also includes space for a greenhouse, lounge, central services, and data processing that are all important for improving educational spaces at BSU. NSC will also have about 15,000 NASF for offices and about 10,000 NASF for classrooms.

The total 2013 CIP estimated cost for NSC is \$89,400,000, which is unchanged from last year's estimate. The estimate, however, has not been informed by the design stage which was expected to commence January 2013 and conclude in October. The plan includes demolition costs for the Crawford Science Building, as BSU has abandoned plans to renovate the Crawford Science Building after the completion of NSC. The Crawford Science Building cannot accommodate the mechanical, electrical, and plumbing systems required for a modern science building. In addition, although the building was remodeled in 1991, it is estimated to be cost prohibitive to meet modern fire and Americans with Disabilities Act requirements due to structural design, such as low ceiling heights and interior load bearing walls. The demolition of the Crawford Science Building will enable a plaza to be placed in front of the new student center, set to be completed in summer 2013.

As a result of this change, the project scope was expanded in the fiscal 2013 recommendation to include the Department of Nursing and the Department of Mathematics, as these departments will no longer be able to stay in the Crawford Building. While the nursing program is housed in the Center for Learning and Technology (CLT), it uses the Crawford Science Building for core science components. CLT does not have space for program growth, and the Crawford Science Building, as noted above, lacks sufficient space. NSC will add extensive new laboratory space for the nursing program to increase enrollment and to provide specialized spaces that simulate various clinical spaces found in a hospital, such as an operating room or pediatric unit. NSC will also offer modern facilities for hazardous material storage, which are not currently available in the Crawford Science Building. Classrooms will be larger to accommodate more students, and NSC will include a lecture hall that can seat 100 students. Office layouts will improve to meet the State guideline of 166 NASF, whereas the Crawford Science Building only offers 90 NASF per office.

This project also assists an initiative by the University System of Maryland (USM) to increase the number of STEM degrees awarded by 40% by 2020. In order to meet this goal, institutions will need to increase production of STEM degrees by approximately 2,200. USM states that achieving this goal will require an array of targeted strategies, such as convincing those interested in or enrolled in education programs to switch to STEM areas, and notes it has seen some success in this area with a 20% increase in math and science education majors in the past fiscal year. NSC will assist in attracting students to STEM fields and retaining students over the course of their studies. In 2011, BSU rejected 22 qualified nursing students because it did not have the physical space to teach them. NSC would provide space for an expanding nursing program and would also attract and retain highly qualified STEM faculty and staff. Finally, as all undergraduate students are required to take a science

class with a laboratory component, NSC will serve as a means to introduce all students to STEM disciplines and promote undergraduate independent research.

Operating Budget Impact Statement

Executive's Operating Budget Impact Statement (\$ in Millions)

| | | <i>FY 2014</i> | <i>FY 2015</i> | <i>FY 2016</i> | <i>FY 2017</i> | <i>FY 2018</i> |
|--------------------------|--------------------------|----------------|----------------|----------------|----------------|----------------|
| Anne Arundel Hall | | | | | | |
| | Estimated Operating Cost | \$0.000 | \$0.000 | \$0.000 | \$1.166 | \$1.799 |
| | Estimated Staffing | 0.000 | 0.000 | 0.000 | 4.000 | 4.000 |

According to the fiscal 2014 CIP, NSC will impact the fiscal 2017 operating budget by \$1.17 million due to general costs for fuel and utilities, supplies and materials, and amortized equipment. Costs also rise to reflect 4 new positions required to maintain the facility and additional costs in running the building when it is completed in fiscal 2017.

GO Bond Recommended Actions

1. Approve the \$4.5 million for planning and construction of the new Natural Sciences Center on the campus of Bowie State University.